

CLAIMS

1. Device for cooling rolling stock within the cooling line of a rolling mill, especially a hot strip rolling mill, in which stationary water spray devices are installed below the rolling stock between rollers of a roller table, and spray bars held on support levers are installed above the rolling stock, wherein the support levers are supported by a tubular, rotationally driven and water-fed articulated tube that extends parallel to the longitudinal axis of the roller table, with a central water feed pipe and an automatic control device with associated on-off valves for switching the cooling water on and off, characterized by the fact that the rollers (10) of the roller table (1) are arranged with the closest possible spacing; that the lower cooling bars (2) are arranged below the spaces remaining between the rollers (10); that the spray tubes (13) of the cooling bars (2) fit into these spaces; and that the rollers (10) of the roller table (1) have elongated pins (11) of small diameter.

2. System in accordance with Claim 1, characterized by the fact that the cooling bars (2) have a pear-shaped cross section, whose neck is directed towards the spaces remaining between the rollers (10) and is furnished with the spray tubes (13).

3. System in accordance with Claim 1 or Claim 2, characterized by the fact that the neck of the pear-shaped cross section of the cooling bars (2) is terminated by a retaining strip (23), which is fitted with spray tubes (13) and advantageously is interchangeable.

4. System in accordance with Claims 1 to 3, characterized by the fact that the free end of each spray tube (13) is fitted with a nozzle (24).

5. System in accordance with Claims 1 to 4, characterized by an articulated tube (15), which carries cooling water and is supported by stands (14) or the like in such a way that it can swivel, and from which tubular support arms (16) originate, which convey cooling water and both support the upper spray bars (3) and supply cooling water to them.

6. System in accordance with Claim 5, characterized by at least one drive mechanism associated with the articulated tube (15). „ „

7. System in accordance with Claim 6, characterized by a hydraulic cylinder (17) that acts on a lever connected with the articulated tube (15), for example, a section of a support lever (16).

8. System in accordance with Claims 1 to 7, characterized by spray guard plates (5) that articulate in front of the end faces of the spray bars (3).

9. System in accordance with Claims 1 to 8, characterized by guide straightedges (6), which can be advanced towards stops (19) representing the strip width to be processed and can be retracted to their wide-open home position at the start of the intensive compact cooling.

10. System in accordance with Claims 1 to 9, characterized by the fact that spray tube plates (4) that are provided with spray tubes (20) can be detachably or interchangeably mounted on the underside of the upper spray bars (3).

11. System in accordance with Claim 10, characterized by the fact that the front free ends of the mouth regions (21) of the spray tubes (20) are expanded like funnels, and the lower ends in the discharge regions (22) are constricted, if necessary, to the desired cross section.

12. System in accordance with Claims 1 to 11, characterized by the fact that the ends of the cooling line of the roller table (1) are preferably equipped with systems (25, 26) for longitudinal spraying.

13. System in accordance with Claim 12, characterized by the fact that flaps (27, 28) that can be lowered are installed in front of the longitudinal spray systems.

14. System in accordance with Claim 12 or 13, characterized by the fact that the longitudinal spray systems (25, 26) are equipped with nozzle tubes (29, 30) that are acted upon by pressurized water and/or compressed air.

15. System in accordance with Claim 14, characterized by the fact that the tubes that carry the nozzles can be raised into an open position.